

REMARKS

As a result of the above amendments, claims 1-5, 8, 9, and 11-30 have been canceled. Claims 31-56 have been added. Thus, claims 31-56 are now pending. No new matter has been added.

As an initial matter, Applicant would like to inform the Examiner that Applicant has recast many of the concepts of the previously pending claims in a new format, which Applicant believes is more clear, and which more clearly distinguishes the references cited by the Examiner within the Office Action. Specifically, claim 31 is directed to an industrial automation system having first and second industrial automation network devices with industrial automation functions. At least claim 36 indicates some examples of industrial automation functions, including monitoring and/or controlling water usage, power usage, temperature, flow rate, a lighting condition, and/or the state of a metal surface polisher. Claim 31 also requires the industrial automation devices each have industrial automation software programs configured to perform a specific industrial automation function which is directly associated with and necessitated by the specific physical location of each of the industrial automation network devices of the industrial automation system. For example, a metal surface polisher within an industrial automation system at a certain location would require an industrial automation software program to be configured to perform a specific industrial automation function (i.e., a metal surface polisher software program, which may be broken down into related sub-components) which is located at the specific location in the industrial automation system. This

Among other location and addressing requirements, the industrial automation system of claim 31 also includes a controlling workstation which stores the industrial automation software program for backup purposes. At least claim 34 indicates that this backup is there to be downloaded from the controlling workstation to the industrial automation network device when a failure or replacement of the first industrial automation network device occurs.

Claim 41 is also directed to an industrial automation system having industrial automation network devices with industrial automation functions. Again, examples of industrial automation functions include monitoring and/or controlling water usage, power usage, temperature, flow rate, a lighting condition, and/or the state of a metal surface polisher. Similar to claim 31, claim

41 also requires the industrial automation devices to each have industrial automation software programs configured to perform a specific industrial automation function which is directly associated with and necessitated by the first physical location of the industrial automation system. The industrial automation software programs will each typically have various related sub-components. In addition to each of the industrial automation network devices of claim 41 having a specific physical location and specific location data representative of the physical location, the industrial automation network devices are each further located within a specific area. This information is used by a master controller which has software for storing mapping data comprising two or more device addresses mapped to one specific area, as determined by the GPS physical site locators. Thus, mapping occurs through the combination of using the same area for multiple industrial automation network devices and using the specific device address, such as a MAC or IP address. The references cited by the Examiner, together, do not disclose or teach at least these aspects in combination with the other elements of the aforementioned claims.

Rejections of Canceled Claims 1-5, 8-9, 11-18, 21-22, and 24-30 Under 35 U.S.C. §103(a)

Canceled Claims 1, 11, and 21

The Examiner first rejected claims 1, 11, and 21 based on the combination of Glorikian (U.S. Patent No. 6,343,317) and Fukui (U.S. Patent No. 6,131,119). While Applicant traverses this rejection, Applicant has recast the many concepts in these claims into claims 31-56 listed above. Specifically, in the Office Action (p.3, lns. 4-12), the Examiner argues that Glorikian discloses that “each network device is adapted to perform a designated function according to the physical location of said network device, so that the designated functions of the network devices can be carried out in a coordinated way as required in the automation environment . . .”

Glorikian does not disclose, teach or suggest that each network device is adapted to perform a designated function according to the physical location of said network device.” This feature is directed to the function of the network device being related to its location, not the location of the network device being determined and the periodic transmissions of information from/to the network device, the function of which is not location dependent. However, for the sake of clarity, Applicant has recast this feature in current claims 31 and 41 by reciting “the first industrial automation network device comprising a first industrial automation software program

configured to perform the first industrial automation function which is directly associated with and necessitated by the first physical location of the industrial automation system. This element is also stated for the second industrial automation network device in claims 31 and 41, and the third and fourth industrial automation network devices in claim 41. As a specific example of this feature, a metal surface polisher within an industrial automation system at a certain location would require an industrial automation software program to be configured to perform a specific industrial automation function (i.e., a metal surface polisher software program) which is located at the specific location in the industrial automation system.

Neither Glorikian, Fukui, Scott (U.S. Patent No. 6,195,706), or Watters (U.S. Patent No. 6,249,245) teach, disclose or suggest this feature in combination with the rest of the features of claims 31 or 41. The Examiner bears the burden of establishing a prima facie case of obviousness, and this burden cannot be met unless all of the claimed limitations are taught or suggested by the prior art. MPEP 2143.03; *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385; 165 USPQ 494, 496 (CCPA 1970). Thus, for this reason alone, claims 31 and 41 should be allowed. In addition, since the remaining dependent claims each necessarily include every element of either claim 31 or 41, each of dependent claims 32-40 and 42-56 should also be allowed.

Canceled Claims 5, 24, and 27

The Examiner also rejected claims 5, 24, and 27 based on the combination of Glorikian and Fukui. While Applicant traverses these rejections, Applicant has recast the concept of these claims into claims 31-56 listed above. Specifically, current claim 31 recites “a controlling workstation comprising mapping software for receiving, mapping, and storing the first device address and the first physical location data, and the second device address and the second physical location data, respectively, the controlling workstation further storing the first industrial automation software program for backup purposes.” Current claim 34 further recites “wherein the first industrial automation software program is downloaded from the controlling workstation to the first industrial automation network device upon a failure or replacement of the first industrial automation network device.” The Examiner cites to Fukui in the Office Action (p.6, lns. 1-8) alleging that it discloses loading a software program from the controlling station to the

device.” Applicant respectfully disagrees. At most, Fukui discloses on-demand entertainment media, such as a movie or a game. It is not directed to the storage or downloading of any software which would be required to operate the device, such as an industrial automation software program. Further, Fukui does not disclose, teach or suggest using a central location for backup or downloading of an industrial automation software program into an industrial automation network device upon a failure or replacement of the industrial automation network device. Thus, for this reason alone, claims 31 and 34, and the claims dependent thereon, should be allowed.

Canceled Claim 18

The Examiner also rejected claim 18 based on the combination of Glorikian and Fukui. While Applicant traverses these rejections, Applicant has recast the concept of these claims into claims 41-56 listed above. Specifically, current claim 41 recites “a master controller comprising software for storing mapping data comprising the first device address and the second device address both mapped to the first area, and the third device address and the fourth device address both mapped to the second area.” The first industrial automation network device has a first physical location used in generating a first location data representative of the first automation network device. Likewise, the second industrial automation network device has a second physical location used in generating a second location data representative of the second automation network device. Likewise, the third industrial automation network device has a third physical location used in generating a third location data representative of the third automation network device. And likewise, the fourth industrial automation network device has a fourth physical location used in generating a fourth location data representative of the fourth automation network device. However, the first and second physical locations are both located in a first area (which may include data representative thereof), and the third and fourth physical locations are both located in a second area.

Within the rejection of previous claim 18 in the Office Action (p.10, lns. 1-2), the Examiner argues that Glorikian discloses a plurality of devices sharing one physical location. Applicant respectfully traverses this rejection. Glorikian indicates that tourists and travelers may be indexed by global position. If anything, this suggests that each tourist and traveler would have a different position, and teaches away from sharing one position or area and performing

tracking using this “shared” information. Thus, Glorikian does not disclose, teach or suggest the above recited arrangement within the canceled claim, nor does it disclose teach or suggest the above limitations of current claim 41. Thus, for this reason alone, claim 41, and the claims dependent thereon, should be allowed.

Canceled Claims 28, 29, and 30

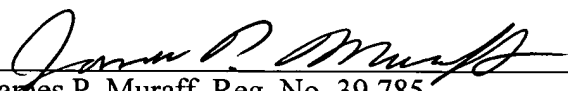
The Examiner also rejected previous claims 28, 29, and 30 (p.10, Ins. 7-9) based on the combination of Glorikian and Fukui. The Examiner cites Fukui at several places for the proposition that a factory automation environment is disclosed. Applicant traverses this rejection. Neither Fukui or Glorikian disclose, teach or suggest a factory automation arrangement or environment, let alone specific automation devices and programs. While Applicant traverses these rejections, Applicant has clarified the claims even further to more clearly direct the scope of the pending claims to industrial automation systems. Specifically, all of the pending claims require: 1) at least two industrial automation network devices, 2) at least two industrial automation software programs, 3) at least two physical locations within an industrial automation system, and 4) at least two industrial automation functions. Neither Fukui or Glorikian disclose, teach or suggest any of these limitations. Thus, for this reason alone, claims 31-56 should be allowed

CONCLUSION

In view of the amendments made herein and the foregoing remarks, it is submitted this application is in condition for allowance. Such action is respectfully requested. Applicant requests the Examiner to contact the undersigned if the Examiner has any questions concerning this Reply.

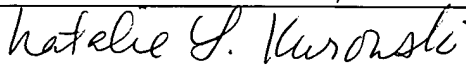
Applicant further authorizes the Commissioner to charge any deficiencies in any required fees to Deposit Account No. 23-0280.

Respectfully submitted,

Dated: December 9, 2004 By: 
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CERTIFICATE OF MAILING (37 C.F.R. § 1.8a)

I hereby certify that this correspondence is, on the date shown below, being deposited with the United States Postal Service, with first class postage prepaid, in an envelope addressed to: Mail Stop Amendment, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

on 12-9-04

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